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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,173	01/17/2002	Anthony O. Banal	10318US01	1851

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Attention: Eric D. Levinson  
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EXAMINER

HECKENBERG JR, DONALD H

ART UNIT PAPER NUMBER

1722

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/053,173

Applicant(s)

BANAL ET AL.

Examiner

Donald Heckenberg

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-22 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 17, 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6, drawn to a method of molding, classified in class 264, subclass 1.33.

II. Claims 7-22, drawn to a molding apparatus, classified in class 425, subclass 139.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions Group I and Group II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. MPEP § 806.05(e). In this case the apparatus as claimed can be used to practice another and materially different process such as a process wherein an air interface is not present between the stamper and mirror block.

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3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Eric Levinson (Applicants' Representative) on August 6, 2004 a provisional election was made with traverse to prosecute the invention of Group II, claims 7-22. Affirmation of this election must be made by Applicants in replying to this Office action. Claims 1-6 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Pub. No. 61-95911 (hereinafter "JP '911"; reference below will be made to the drawings of this document as well as the English abstract also made of record which is fully supported by the document).

JP '911 discloses a molding tool. The molding tool comprises a moving side (3) and a non-moving side (11). A ground strap forms a substantially non-resistive path to ground (4) coupled to the moving side (see figs. 2 & 3 and abstract).

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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11. Claims 7-9, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes (U.S. Pat. No. 4,374,636) in view of Grisell (U.S. Pat. No. 3,768,227).

Holmes discloses an injection molding tool for producing disc structures. The tool comprises two mirror blocks (63 and 65), both of which are provided with stampers (33 and 35). The mirror blocks and stampers define a molding cavity in which the disc structure (10) is molded.

Holmes does not disclose the apparatus to comprise a ground strap which provides a substantially non-resistive path to ground coupled to the mold.

Grisell discloses method of dissipating static electricity in various applications. Specifically, Grisell notes the problem of static electricity in the molding of plastic resins (cl. 3, ll. 53-59). Grisell suggests providing a ground strap to one of the mold members to thereby eliminate the problem of static electricity (cl. 3, l. 59 - cl. 4, l. 4).

It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to have modified the apparatus of Holmes as such to provide the apparatus with a ground strap connected to the one or both of the mold members to thereby provide a substantially non-resistive path to ground

because this would eliminate the problem of static electricity during molding as suggested by Grisell.

It is noted that claims 7-9 describe one side of the mold to be a moving side, with the other side a non-moving side, and that Holmes describes both the mold sides as moving between open and closed positions (cl. 4, ll. 54-59). However, one of ordinary skill in the art would clearly recognize that the apparatus could easily be modified to operate in a manner as such that only one of the sides moves because an apparatus with only one moving side would still be able to perform the same process with the open and closed positions disclosed by Holmes, and thus be functionally equivalent.

12. Claims 7-14 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Hout et al. (U.S. Pat. No. 6,238,197) in view of Grisell.

Van Hout discloses an injection molding apparatus for producing plastic objects. The mold comprises two mirror blocks (26 and 27), with one of the mirror blocks being provided with a stamper (6). Van Hout notes that the stamper used is known to be made of nickel (cl. 1, ll. 15-19). Van Hout also discloses that titanium nitrate coatings are known for use on the mirror blocks, and that diamond-like carbon coatings can be used as



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well (cl. 1, ll. 42-52; cl. 3, l. 66 - cl. 4, l. 5; cl. 8, ll. 20-24).

Van Hout further discloses that the stamper (6) may be held to its mirror block using a vacuum, which in turn creates an air gap (12) between the stamper and mirror block (see fig. 2; cl. 7, ll. 55-57; cl. 7. l. 65 - cl. 8, l. 2).

Van Hout does not disclose the apparatus to comprise a ground strap which provides a substantially non-resistive path to ground coupled to the mold.

Grisell discloses method of dissipating static electricity in various applications. Specifically, Grisell notes the problem of static electricity in the molding of plastic resins (cl. 3, ll. 53-59). Grisell suggests providing a ground strap to one of the mold members to thereby eliminate the problem of static electricity (cl. 3, l. 59 - cl. 4, l. 4).

It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to have modified the apparatus of Van Hout as such to provide the apparatus with a ground strap connected to the one or both of the mold members to thereby provide a substantially non-resistive path to ground because this would eliminate the problem of static electricity during molding as suggested by Grisell. In dissipating static electricity from the mold structure, the apparatus suggested by

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the combination of Van Hout and Grisell would thereby reduce any charge dissipation across the air gap between the stamper and mirror block.

It is noted that claims 7-9 and 20 describe one side of the mold to be a moving side, with the other side a non-moving side, and that Van Hout describes both the mold sides as moving between open and closed positions (cl. 7, ll. 39-45). However, one of ordinary skill in the art would clearly recognize that the apparatus of Van Hout could easily be modified to operate in a manner as such that only one of the sides moves because an apparatus with only one moving side would still be able to perform the same process with the open and closed positions disclosed by Holmes, and thus be functionally equivalent.

13. Claims 7-9, 16, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerfeld (U.S. Pat. No. 6,354,827) in view of Grisell.

Kerfeld discloses a stamper assembly and injection molding apparatus using the stamper assembly (see fig. 15). Kerfeld provides the apparatus with mirror blocks and a stamper (see fig. 15), notes that that there is a moving side and a non-moving side, and that the stamper may be provided on either side (cl. 11, l. 59 - cl. 12, l. 5).

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Kerfeld does not disclose the apparatus to comprise a ground strap which provides a substantially non-resistive path to ground coupled to the mold.

Grisell discloses method of dissipating static electricity in various applications. Specifically, Grisell notes the problem of static electricity in the molding of plastic resins (cl. 3, ll. 53-59). Grisell suggests providing a ground strap to one of the mold members to thereby eliminate the problem of static electricity (cl. 3, l. 59 - cl. 4, l. 4).

It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to have modified the apparatus of Kerfeld as such to provide the apparatus with a ground strap connected to the one or both of the mold members to thereby provide a substantially non-resistive path to ground because this would eliminate the problem of static electricity during molding as suggested by Grisell.

14. Claims 7-9, 16, 17, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al. (U.S. Pat. No. 6,054,075) in view of Grisell.

Inaba discloses an injection molding apparatus. The apparatus includes a moving side and a non-moving side (cl. 2, ll. 43-51). The apparatus also includes a control unit coupled

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to the mold to control the molding process, and a robotic arm coupled to the control unit for receiving molded components from the molding tool (cl. 4, ll. 23-29 and cl. 5, ll. 44-58).

Inaba does not disclose the apparatus to comprise a ground strap which provides a substantially non-resistive path to ground coupled to the mold.

Grisell discloses method of dissipating static electricity in various applications. Specifically, Grisell notes the problem of static electricity in the molding of plastic resins (cl. 3, ll. 53-59). Grisell suggests providing a ground strap to one of the mold members to thereby eliminate the problem of static electricity (cl. 3, l. 59 - cl. 4, l. 4).

It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to have modified the apparatus of Inaba as such to provide the apparatus with a ground strap connected to the one or both of the mold members to thereby provide a substantially non-resistive path to ground because this would eliminate the problem of static electricity during molding as suggested by Grisell.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Heckenberg whose telephone number is (571) 272-1131. The

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examiner can normally be reached on Monday through Friday from 9:30 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached at (571) 272-1151. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<<http://pair-direct.uspto.gov>>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

 8-23-04  
Donald Heckenberg  
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